



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/632,668	07/31/2003	Corey Billington	10017471-1	3567

22879 7590 10/27/2006

HEWLETT PACKARD COMPANY  
P O BOX 272400, 3404 E. HARMONY ROAD  
INTELLECTUAL PROPERTY ADMINISTRATION  
FORT COLLINS, CO 80527-2400

EXAMINER

NGUYEN, TANH Q

ART UNIT PAPER NUMBER

2182

DATE MAILED: 10/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/632,668

**Applicant(s)**

BILLINGTON ET AL.

**Examiner**

Tanh Q. Nguyen

**Art Unit**

2182

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-6, 10; 11-12, 15, 21-23; 29 are rejected under 35 U.S.C. 102(e) as being anticipated by Watkins (US 6,631,418).

3. As per claim 1, Watkins teaches an ultra-thin client network system [FIG. 1], comprising:

a processing center [FIGs. 2, 3, 5], including:

a processor [204, FIG. 2; col. 6, lines 16-19];

a data bus in data communication with the processor [FIG. 2 and FIG. 5];

a concurrency device [524, 528, 532-1 to 532-n, FIG. 5], operatively coupled to the data bus, wherein the concurrency device enables sharing of the processor between a plurality of clients running separate applications on the processor [col. 9, lines 34-45; col. 6, lines 16-19];

a wireless data connection [a wireless data connection that is necessary for communication with channel 116 represented by a parabolic antenna, FIG. 1], operatively coupled to the concurrency device [FIG. 5]; and

a plurality of ultra-thin clients [102, FIG. 1; col. 8, lines 51-53; col. 9, lines 46-49], each further comprising a communication device including a wireless data connection [116, FIG. 1], whereby each of the ultra-thin clients can be in data communication with the concurrency device [col. 9, lines 34-45; col. 6, lines 16-19], and can be located in relation to the processing center without cabling [through channel 116, FIG. 1], and can share in a processing capability of the processing center while running a separate application on the processor [col. 6, lines 16-19].

Watkins (US 6,631,418) teaches a high bandwidth network channel 116, represented by a parabolic antenna [col. 3, lines 60-63], the high bandwidth channel preferably having a capacity of more than 10 Mb/s [col. 4, lines 3-5], and transmission from the multimedia terminal 102 being satisfied with a lower capacity channel [col. 4, lines 5-8].

Watkins (US 6,009,470) teaches a high bandwidth network channel represented by a parabolic antenna [204, FIG. 2], the high bandwidth channel preferably having a capacity of more than 10 Mb/s, transmission from the multimedia terminal [202, FIG. 2] being satisfied with a lower capacity channel, the high bandwidth channel being satellite transmission links and the high bandwidth channel may be designed to provide for a low bandwidth user signal transmission to the server [114, FIG. 2].

As Watkins is the inventor in both US 6,631,418 and US 6,009,740, and as there are similarities between FIG. 2 of US 6,009,740 and FIG. 1 of US 6,631,418, US 6,009,740 is deemed to provide evidence for the parabolic antenna on US 6,631,418 to have a two-way wireless data communication (i.e. a two-way satellite transmission link)

between the concurrency device (i.e. server 112, FIG. 1) and an ultra-thin client device (multimedia terminal 102, FIG. 1) disclosed in Watkins (US 6.631,418).

4. As per claims 2-6, 10, Watkins teaches at least one of the ultra-thin clients comprises at least one keyboard [104, FIG. 1] and at least one monitor [106, FIG. 1] operatively connected to the communication device of the ultra-thin client [102, FIG. 1]; whereby the ultra-thin client can comprise an I/O interface between a user and the processing center [FIG. 1];

the system further comprising a pointing device [104, FIG. 4], a printer [418, FIG. 4], an audio reproduction device [428, FIG. 4], a joystick and an image capture device [col. 3, lines 64-67]; the system being configured for home use or office use [col. 9, lines 49-53];

the processing center comprising a computer, the computer comprising a PC [112, FIG. 1; col. 7, lines 20-24].

5. As per claims 11-12, 15, the claims generally correspond to claims 1, 4-5 and are rejected on the same bases.

6. As per claims 21-23, Watkins teaches the system further comprising an Internet connection, whereby the processor can be in communication with the Internet and an ultra-thin client user can access the Internet [col. 9, lines 46-56];

the system being configured for use in a commercial office environment [col. 9, lines 49-53];

the processing center comprising a server [112, FIG. 1].

7. As per claim 29, the claim generally corresponds to claim 1 and is rejected on the

same basis.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 13-14, 16, 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watkins.

11. As per claims 13-14, 16, Watkins does not specifically teach an ultra-thin client being configured for use in a kitchen environment, an ultra-thin client being configured primarily to facilitate entertainment, or an ultra-thin client being configured primarily to facilitate gaming.

Since applicant discloses the ultra-thin clients being application and location specific with the ultra-thin clients being configured for use in a kitchen environment, or primarily to facilitate entertainment or gaming as examples [page 13, line 25-page 14, line 2], the specific locations and specific applications are not considered significant. It would have been obvious to one of ordinary skill in the art at the time the invention was made for an ultra-thin client to be configured for use in a kitchen environment in order to facilitate processing of kitchen-related applications in a kitchen environment, and for an ultra-thin client to be configured primarily to facilitate entertainment or gaming in order to facilitate processing of entertainment-related or game-related applications in an entertainment or gaming environment.

12. As per claims 27-28, Watkins teaches the concurrency device [see rejection of claim 1 above] and the wireless connection hardware including an antenna [116, FIG. 1], but does not teach the concurrency device and some wireless connection hardware being combined on a single card connectable to the system bus with the antenna being attached to the single card.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the concurrency device and some wireless connection hardware on a single card, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893).

Furthermore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to attach the antenna to the single card in order to

enhance wireless transmissions and receptions with the single card, as it is known in the art to use an antenna to enhance wireless transmissions and receptions.

13. Claims 7-9, 17-20, 24-26, 30-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watkins in view of AAPA (Applicant Admitted Prior Art [page 1, line 18-page 3, line 19]).

14. As per claim 7, Watkins does not teach the system being configured to facilitate connection of a shared peripheral device.

AAPA teaches shared peripherals devices being connected to the processing center and physically located at a central location rather than the thin client station [page 3, lines 8-11; page 2, lines 31-32] in order to reduce cost and space [page 2, lines 11-20], hence teaches facilitating connection of a shared peripheral device to the processing center in order to reduce cost and space.

It would have been obvious to one of ordinary skill in the art at the time the invention was made for the system to be configured to facilitate connection of a shared peripheral device to the processing center in order to reduce cost and space.

15. As per claim 8, AAPA further teaches shared resources such as the server (i.e. the processing center), printer and scanner (i.e. shared peripheral devices) being connected by wireless connection scheme to the network [page 2, lines 24-26; page 2, lines 16-17], hence teaches a powered peripheral node PPN (a wireless connection of a printer on a network would necessitate providing power to the printer locally) and a wireless connection between the PPN and the processing center (since it was known in the art at the time the invention was made for a peripheral device to be wirelessly



Art Unit: 2182

connected to a server in order to allow communication with the server without cluttering cables, it would have been obvious to one of ordinary skill in the art at the time the invention was made for the peripheral device (the printer) to be wirelessly connected with the processing center (the server) in order to reduce cluttering), the PPN therefore facilitating connection of the peripheral device for shared use by users on the network system.

16. As per claim 9, AAPA teaches the system comprising a PPN wherein the PPN and shared peripheral device comprise a printer, power and data connections for the printer, and one additional peripheral device (e.g. a scanner) connected to the network [see rejection of claim 8 above]. AAPA does not teach the additional peripheral device sharing a power supply with the printer.

Since it was known in the art at the time the invention was made for a plurality of peripheral devices in a network node to share a power supply to reduce cost, it would have been obvious to one of ordinary skill in the art at the time the invention was made for the additional peripheral device to share the power supply with the printer in order to reduce cost.

Further, it was known in the art at the time the invention was made for a scanner and a printer to be integrated because they share essential components in order save cost, hence the scanner (i.e. the additional peripheral device) sharing the power supply with the printer. It would have been obvious to one of ordinary skill in the art at the time the invention was made to integrate an additional peripheral device such as a scanner with the printer in order to reduce cost, hence the printer and scanner sharing the same

power supply.

17. As per claims 17-20, see the rejections of claims 7-9 above.
18. As per claims 24-25, see the rejections of claims 7-8 above.
19. As per claim 26, Watkins/AAPA teaches a shared peripheral device connected to the processing center by wireless data connection [see rejection of claim 8 above], but does not specifically teach the shared peripheral device being remote from the processing center.

Since applicant discloses the location of a shared peripheral device adjacent one of the ultra-thin clients being an example of a location of a shared peripheral device [page 10, lines 6-8], applicant implicitly discloses the location of the shared peripheral device being application-specific and being remote from the processing center, hence the shared peripheral device being remote from the processing center not being considered significant. It would have been obvious to one of ordinary skill in the art at the time the invention was made for a shared peripheral device to be located adjacent a specific ultra-thin client in applications where the shared peripheral device is used by the specific ultra-thin client more frequently than the other ultra-thin clients of the network, hence the shared peripheral device being remote from the processing center.

20. As per claim 30, AAPA teaches enabling connection of a plurality of shared peripheral devices to the processor [page 3, lines 8-11], hence connection of the shared peripheral devices to the system bus, and in combination with Watkins teaches users of the ultra-thin clients being able to share the peripheral devices [see rejection of claim 7 above].

21. As per claims 31-32, Watkins/AAPA teaches a PPN and wireless data communication with a peripheral device [see rejection of claim 8 above], but does not teach configuring the PPN for connecting the peripheral device to the processing center through the PPN. Essentially, Watkins/AAPA does not teach the power supply function being integrated with the wireless communication function.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to integrate the power supply function and the wireless communication function within the printer, hence forming a PPN and configuring the PPN for connecting the peripheral device to the processing center through the PPN - since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893).

22. As per claims 33-34, Watkins/AAPA teaches a shared peripheral device connected to the processing center by wireless data connection [see rejection of claim 8 above], but does not specifically teach the shared peripheral device being remote from the processing center and the location of the shared peripheral device being adjacent to an ultra-thin client.

Since applicant discloses the location of a shared peripheral device adjacent one of the ultra-thin clients being an example of a location of a shared peripheral device [page 10, lines 6-8], applicant implicitly discloses the location of the shared peripheral device being application-specific and being remote from the processing center, hence the shared peripheral device being remote from the processing center not being

considered significant. It would have been obvious to one of ordinary skill in the art at the time the invention was made for a shared peripheral device to be located adjacent a specific ultra-thin client, hence the shared peripheral device being remote from the processing center - in applications where the shared peripheral device is used by the specific ultra-thin client more frequently than the other ultra-thin clients of the network.

### ***Response to Arguments***

23. Applicant's arguments with respect to claims 1-34 have been considered but are persuasive.

24. Applicant essentially argued with respect to claims 1-6, 10-12, 15, 21-23, 29 that Watkins (US 6,631,418) does not teach the parabolic antenna enabling a two-way wireless communication from the ultra-thin client device. The argument is not persuasive because the parabolic antenna represents two-way wireless communication from the ultra-thin client device, as is evidenced by Watkins (US 6,009,470) - see the rejections of claim 1 above.

Applicant also argued that even if the parabolic antenna is suggestive of wireless communication, the teachings of Watkins (US 6,331,418) at best suggests one-way data communication using satellite dish, and that a partly wired and partly wireless communication would fall outside the scope of claim 1, which requires "a wireless data connection between the concurrency device and the plurality of ultra-thin clients". The argument is not persuasive because "a wireless data connection between the concurrency device and the plurality of ultra-thin clients" does not require a two-way

Art Unit: 2182

wireless communication - therefore, does not preclude a partly wired and partly wireless communication.

25. Applicant argued with respect to claims 13, 14, 16, that Watkins fails to teach the additional limitations of the claims, and fails to provide a suggestion or motivation to modify the teachings of Watkins, and that the examiner appeared to improperly relied on applicant's disclosure for the motivation to combine.

The arguments are not persuasive because the examiner relied on applicant's disclosure to show that the limitations recited by the respective claims are not significant because applicant discloses the limitations as being application-specific and location-specific and because they were merely cited in the disclosure as examples - see the rejection of claims 13, 14, 16 above.

Furthermore, the motivation for configuring an ultra-thin client for use in a kitchen environment is to facilitate processing of kitchen-related applications in a kitchen environment, and the motivation for configuring an ultra-thin client primarily to facilitate entertainment or gaming is to facilitate processing of entertainment-related or game-related applications in an entertainment or gaming environment - see the rejection of claims 13, 14, 16 above.

26. Applicant argued with respect to claims 7-9, 17-20, 24-26 and 30-34, that the claims are allowable because they depend on respective allowable independent claims. The argument is not persuasive because the arguments with respect to the independent claims are not persuasive - see response to arguments with respect to claims 1-6, 10-12, 15, 21-23, 29 above.

27. Applicant essentially argued with respect to claims 8, 9, 18-20, 31, 32 that Watkins/AAPA does not describe a powered peripheral node (PPN).

The argument is not persuasive because AAPA was relied upon to teach a wireless connection of a peripheral device (e.g. a printer) to a network, hence teaches a PPN because a wireless connection of the peripheral device (i.e. the printer) on the network would necessitate providing power to the peripheral device locally and because the peripheral device represents a node on the network - see rejection of claim 8 above.

Furthermore, AAPA was relied upon to teach one additional peripheral device (e.g. a scanner) connected wirelessly to the network. AAPA was not relied upon to teach the additional peripheral device sharing a power supply with the printer. Instead well-known statements were used in conjunction with AAPA to teach an additional peripheral device (i.e. the scanner) sharing the power supplied by the peripheral device (i.e. the printer). Part of the rejection of claim 9 is repeated here to illustrate the examiner position.

Since it was known in the art at the time the invention was made for a plurality of peripheral devices in a network node to share a power supply to reduce cost, it would have been obvious to one of ordinary skill in the art at the time the invention was made for the additional peripheral device to share the power supply with the printer in order to reduce cost.

Further, it was known in the art at the time the invention was made for a scanner and a printer to be integrated because they share essential components in order save cost, hence the scanner (i.e. the additional peripheral device) sharing the power supply with the printer. It would have been obvious to one of ordinary skill in the art at the time the invention was made to integrate an additional peripheral device such as a scanner with the printer in order to reduce cost, hence the printer and scanner sharing the same power supply.

Since the well-known statements were not traversed, they will be treated as prior art.

28. Applicant argued with respect to claims 26, 33, 34, that Watkins fails to teach a shared peripheral device being remote from the processing center, and fails to provide a suggestion or motivation to modify the teachings of Watkins, and that the examiner appeared to improperly relied on applicant's disclosure for the motivation to combine.

The arguments are not persuasive because the examiner relied on applicant's disclosure to show that the limitations recited by the respective claims are not significant because applicant discloses the limitations as being application-specific and location-specific and because they were merely cited in the disclosure as examples - see the rejection of claims 26, 33, 34 above.

Furthermore, the motivation for locating a shared peripheral device adjacent a specific ultra-thin client is to allow the shared peripheral device to be used by the specific ultra-thin client more frequently than the other ultra-thin clients of the network in applications where the specific ultra-thin client requires more frequent use of the shared peripheral device than the other ultra-thin clients of the network. The shared peripheral device is remote from the processing center because the specific ultra-thin client is remote from the processing center and because the specific ultra-thin client is adjacent to the shared peripheral device - see the rejections of claims 26, 33, 34 above.

***Conclusion***

29. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

30. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tanh Q. Nguyen whose telephone number is 571-272-4154. The examiner can normally be reached on M-F 9:30AM-7:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Huynh can be reached on 571-272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

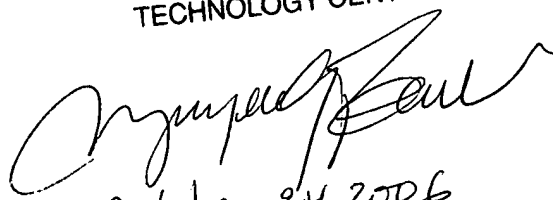
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should



Art Unit: 2182

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TANH Q NGUYEN  
PRIMARY EXAMINER  
TECHNOLOGY CENTER 2100

  
October 24, 2006

TQN  
October 24, 2006